

Interactive comment on “Mechanisms of vegetation uprooting by flow in alluvial non-cohesive sediment” by K. Edmaier et al.

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We thank this Reviewer for his/her very positive comment. It gives a good summary of the important statements of this publication and also highlights the challenges of our experimental work. We appreciate his/her positive attitude toward the initial experimental work, and we totally agree with him/her about the fact that experiments will not be easy given the expected high degree of stochasticity. Also, we agree that the upscaling can only respect partial, not total mechanical similarity. This notwithstanding, we believe to be able to identify some other key processes that may help shedding light on the complex picture of mechanism of root resistance and erosion by flow. Understanding such mechanisms better can for instance lead to improve the classical relationships

C1271

and timescales of riverbed morphodynamics (which are valid in the absence of vegetation) in order to account for possible sediment texturing due to the presence of roots. The comment is highly motivating for further investigations and experiments within this project.

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